ELEMENTARY SCHOOL PROFICIENCY ASSESSMENT

GRADE 4

MATHEMATICS

2000 SAMPLE FORM

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Directions to the Student

When you are taking this test, remember these important things:

1. Read each question carefully and think about the answer.

2. If you do not know the answer to a question, go on to the next question. You may come back to the skipped question later if you have time.

3. When you see a STOP sign, do **not** turn the page until you are told to do so.

GO ON TO THE NEXT PAGE.

DIRECTIONS:

The next 2 sections of the test have 8 multiple-choice questions. You will fill in the circle next to the answer you choose. You may NOT use a calculator.

Sample Multiple-Choice Questions

The sample questions below show you what the questions are like and how to mark your answer.

For Example:

1. **Find the exact answer: 110 + 70**

Ⓐ **18**

Ⓑ **81**

● **180**

Ⓓ **810**

The correct answer is C. The circle with the C in it has been filled in to show that C is the correct answer.

2. **Estimate 123 + 685. The sum is between what numbers?**

Ⓐ **400 and 600**

● **700 and 900**

Ⓒ **1,000 and 1,200**

Ⓓ **1,300 and 1,500**

The correct answer is B. The circle with the B in it has been filled in to show that B is the correct answer.

TURN TO THE NEXT PAGE.

DIRECTIONS:

Choose the best of the answer choices given for each of the following problems. Fill in the circle next to your choice. You may NOT use a calculator.

1. **Find the exact answer: $4 \times 25 \times 9$**

   Ⓐ **90**

   Ⓑ **100**

   Ⓒ **360**

   Ⓓ **900**

2. **Find the exact answer: $900 - 201$**

   Ⓐ **699**

   Ⓑ **700**

   Ⓒ **701**

   Ⓓ **799**

GO ON TO THE NEXT PAGE.

3. Estimate 989 + 13. The sum is between what numbers?

Ⓐ 700 and 850

Ⓑ 900 and 1,050

Ⓒ 1,100 and 1,250

Ⓓ 1,300 and 1,450

4. Estimate 756 ÷ 8. The quotient is between what numbers?

Ⓐ 8 and 10

Ⓑ 11 and 13

Ⓒ 80 and 100

Ⓓ 110 and 130

If you have time, you may review your work in this section only.

DO NOT GO ON UNTIL YOU ARE TOLD TO DO SO.

DIRECTIONS:

Choose the best of the answer choices given for each of the following problems. Fill in the circle next to your choice. You may NOT use a calculator.

5. 376 + 119 + 85

Ⓐ **460**

Ⓑ **580**

Ⓒ **1,230**

Ⓓ **1,345**

6. 810 – 18

Ⓐ **828**

Ⓑ **808**

Ⓒ **802**

Ⓓ ***792***

7.
$$\begin{array}{r} 56 \\ \times\ 74 \\ \hline \end{array}$$

Ⓐ **120**

Ⓑ **130**

Ⓒ **3,144**

Ⓓ **4,144**

8. $568 \div 4$

Ⓐ **564**

Ⓑ **142**

Ⓒ **140**

Ⓓ **112**

If you have time, you may review your work in this section only.

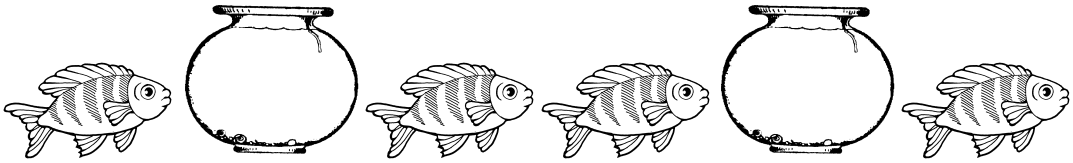
DO NOT GO ON UNTIL YOU ARE TOLD TO DO SO.

▲ ▲ ▲

DIRECTIONS:

You are allowed to use your calculator for the following questions. You may also use the ruler or the shapes. Remember to fill in the circle next to your answer choice.

9. Look at the pattern below.



Which letter pattern matches the shape pattern?

Ⓐ **F B F B F B**

Ⓑ **F B D F B D**

Ⓒ **F F F B B B**

Ⓓ **F B F F B F**

10. If ☐ × 8 = 96, what is the value of ☐ ?

Ⓐ **12**

Ⓑ **88**

Ⓒ **104**

Ⓓ **768**

GO ON TO THE NEXT PAGE.

11. Brett is taking care of his neighbor's dog for 7 days. Brett needs to let the dog outside 3 times a day. In all, how many times will Brett let the dog out?

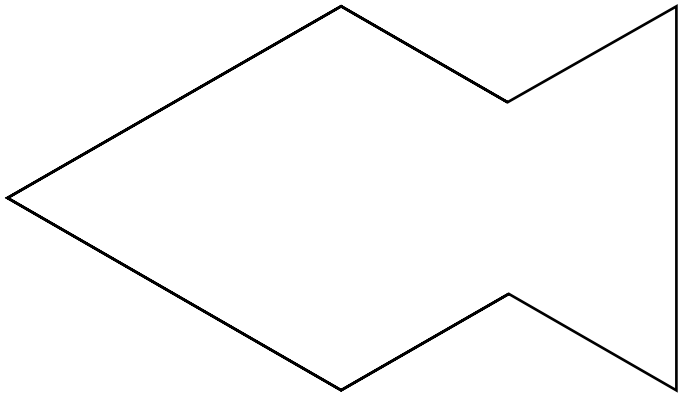
Ⓐ **7**

Ⓑ **10**

Ⓒ **21**

Ⓓ **28**

12. Which group of shapes was used to form the figure below? Use your colored shapes to help you.



Ⓐ **2 yellow hexagons and 1 green triangle**

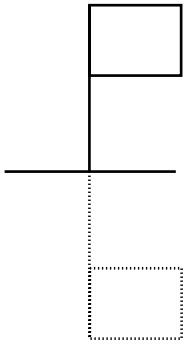
Ⓑ **3 red trapezoids**

Ⓒ **1 yellow hexagon, 1 red trapezoid, and 1 green triangle**

Ⓓ **1 yellow hexagon and 3 green triangles**

TURN TO THE NEXT PAGE.

13. What was done to the flag?



Ⓐ **a slide**

Ⓑ **a flip**

Ⓒ **a turn**

Ⓓ **a turn and a slide**

GO ON TO THE NEXT PAGE.

14. Which is the best unit to describe the amount of water in a swimming pool?

Ⓐ **cup**

Ⓑ **pint**

Ⓒ **quart**

Ⓓ **gallon**

15. José is making a five-sided sign. Which figure has exactly five sides?

Ⓐ **decagon**

Ⓑ **hexagon**

Ⓒ **pentagon**

Ⓓ **trapezoid**

TURN TO THE NEXT PAGE.

16. Each of the letters of the word RIVERBED is written on a separate card and placed in a bag. If one letter is chosen at random, which statement is true?

Ⓐ **The probability of choosing an R is greater than choosing an E.**

Ⓑ **The probability of choosing an E is greater than choosing an R.**

Ⓒ **The probability of choosing an R or an E is the same.**

Ⓓ **There is not enough information given.**

17. Every week, Milo changes the security code on his computer. He follows these steps to come up with a new code.

Step 1 **He finds the fifth word on the fifth page of that day's newspaper.**

Step 2 **He finds the number that goes with each of the letters in that word (A = 1, B = 2, and so on).**

Step 3 **He adds all the numbers for the letters in the word. The total number is his security code.**

Today, the first sentence on the fifth page is, "The new sculpture made of steel was placed in the town square today." What is Milo's new security code?

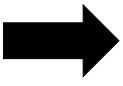
Ⓐ **21**

Ⓑ **39**

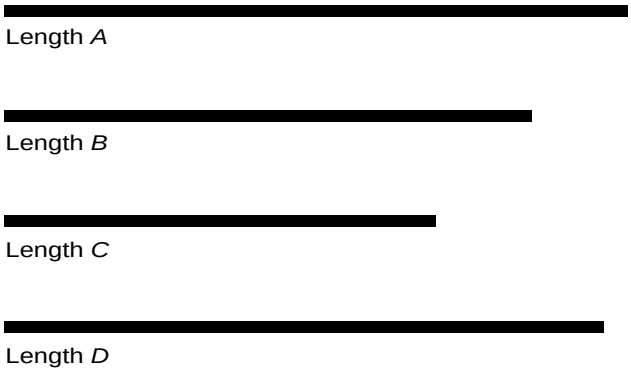
Ⓒ **44**

Ⓓ **90**

GO ON TO THE NEXT PAGE.



18. Use your ruler to measure the four lengths below.



Length *A*

Length *B*

Length *C*

Length *D*

Which length is at least $2\frac{1}{2}$ inches long but no more than 3 inches long?

Ⓐ **Length *A***

Ⓑ **Length *B***

Ⓒ **Length *C***

Ⓓ **Length *D***

19. The temperature in the food freezer was 70°F when it was plugged in at 12:00 noon. If the temperature went down 8°F every hour, what was the temperature in the freezer at 3:00 P.M.?

Ⓐ **28°F**

Ⓑ **46°F**

Ⓒ **54°F**

Ⓓ **62°F**

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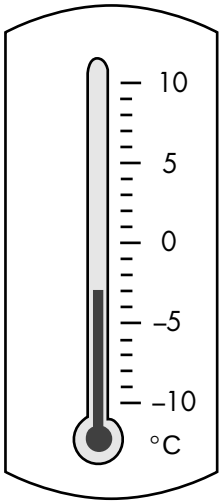
20. The thermometer shows that the temperature outside is –3°C.



What would the temperature be if it were *7* degrees warmer?

Ⓐ **–10°C**

Ⓑ **–3°C**

Ⓒ **4°C**

Ⓓ **11°C**

GO ON TO THE NEXT PAGE.

Directions for the Open-Ended Question

The following question is an open-ended question. Remember to:

- Read the question carefully and think about the answer.
- Answer all the parts of the question.
- Show your work and explain your answer.

You can answer the questions by using words, tables, diagrams, OR pictures. You may use your calculator or the ruler or shapes.

TURN TO THE NEXT PAGE.

21. After lunch, fourth-grade students at Washington Elementary School choose an activity. Last week, their choices were basketball, relay races, soccer, or reading. The table below shows the choices that each class made.

Number of Students Choosing Each Activity

Class	Activity: Basketball	Relay Races	Soccer	Reading
Mr. Green	10	7	8	9
Mr. Batista	7	10	9	8
Mr. Kelly	11	6	4	9
Ms. Flemming	8	9	3	10

- **Use the information from the table above to create a bar graph of the choices made in Ms. Flemming's class. Be sure to label all parts of the graph and give the graph a title.**

GO ON TO THE NEXT PAGE.

Work area for question 21

If you have time, you may review your work in this section only.

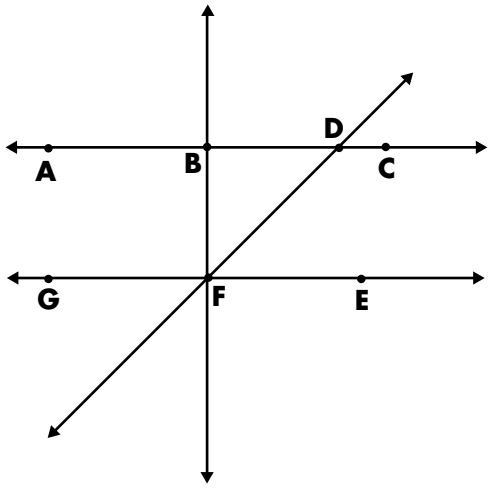
DO NOT GO ON UNTIL YOU ARE TOLD TO DO SO.

DO NOT WRITE IN THIS AREA

DIRECTIONS:

Choose the best of the answer choices given for each of the following problems. Fill in the circle next to your choice. You may use your calculator.

22. Which lines in the diagram below appear to be parallel?



Ⓐ $\overleftrightarrow{BF}$ and $\overleftrightarrow{GE}$

Ⓑ $\overleftrightarrow{AC}$ and $\overleftrightarrow{GE}$

Ⓒ $\overleftrightarrow{BF}$ and $\overleftrightarrow{AC}$

Ⓓ $\overleftrightarrow{FD}$ and $\overleftrightarrow{AC}$

TURN TO THE NEXT PAGE.

23. If this pattern continues, what is the next number?

5, 8, 7, 10, 9, 12, 11, ...

Ⓐ **14**

Ⓑ **12**

Ⓒ **10**

Ⓓ **8**

24. This list shows the names of the students who are in the Environmental Club.

Students in the Environmental Club				
Latoya	**Carla**	**Abby**	**Mark**	**Janice**
Jeff	**Judy**	**Dave**	**Kim**	**Chris**

One student will be chosen at random to make a recycling poster. What is the probability that the student's name begins with the letter J?

Ⓐ $\frac{1}{3}$

Ⓑ $\frac{1}{5}$

Ⓒ $\frac{1}{10}$

Ⓓ $\frac{3}{10}$

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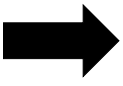


25. Luke took the temperature of the water in the swimming pool every 2 hours starting at 10:00 A.M. The temperatures he recorded are listed below.

74° 78° 79° 74° 70°

What is the mode of this data?

Ⓐ **70°**

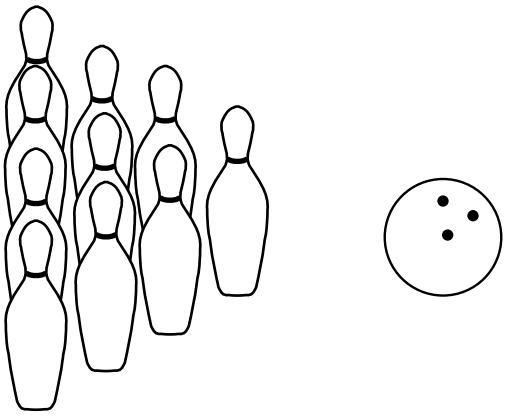
Ⓑ **74°**

Ⓒ **75°**

Ⓓ **79°**

TURN TO THE NEXT PAGE.

26. Malcolm is on an after-school bowling team. The team bowls once every week. His scores for the first 3 weeks were 98, 107, and 101. What was his average (mean) score?



Ⓐ **107**

Ⓑ **102**

Ⓒ **101**

Ⓓ **99**

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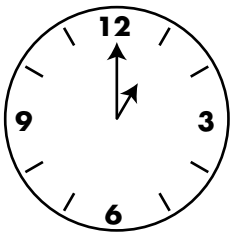
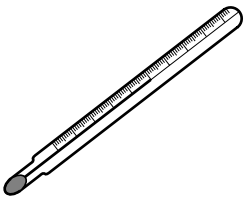
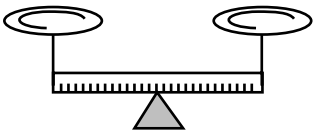
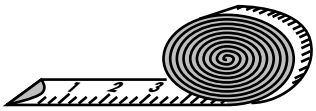
27. Lorna wants to measure the temperature of a beaker of water. Which of these tools should she use?

Ⓐ 

Ⓑ 

Ⓒ 

Ⓓ 

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Directions for the Open-Ended Questions

The following questions are open-ended questions. Remember to:

- Read each question carefully and think about the answer.
- Answer all the parts of the questions.
- Show your work and explain your answers.

You can answer the questions by using words, tables, diagrams, OR pictures. You may use your calculator.

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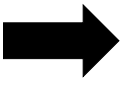


28. Veronica is making a rectangular garden. She plans to put a fence around the garden using 28 feet of fencing, and she wants the garden to be 8 feet long.

- **How wide will Veronica's garden be? Show how you got your answer.**

- **If Veronica is going to put fence posts two feet apart around the outside of the garden, how many fence posts will she need? Show all of your work and explain your answer.**

Work area for question 28

TURN TO THE NEXT PAGE.

29. On Friday, your class will have a party after lunch. Each of the 30 students in your class has chosen one party activity. Here are the results:

> $\frac{1}{2}$ **of the class chose outdoor relay races.**
>
> $\frac{1}{3}$ **of the class chose indoor games.**
>
> **The rest of the class chose to watch a movie.**

- **How many students chose to watch a movie?**
- **Show all of your work and explain your answer.**

Work area for question 29

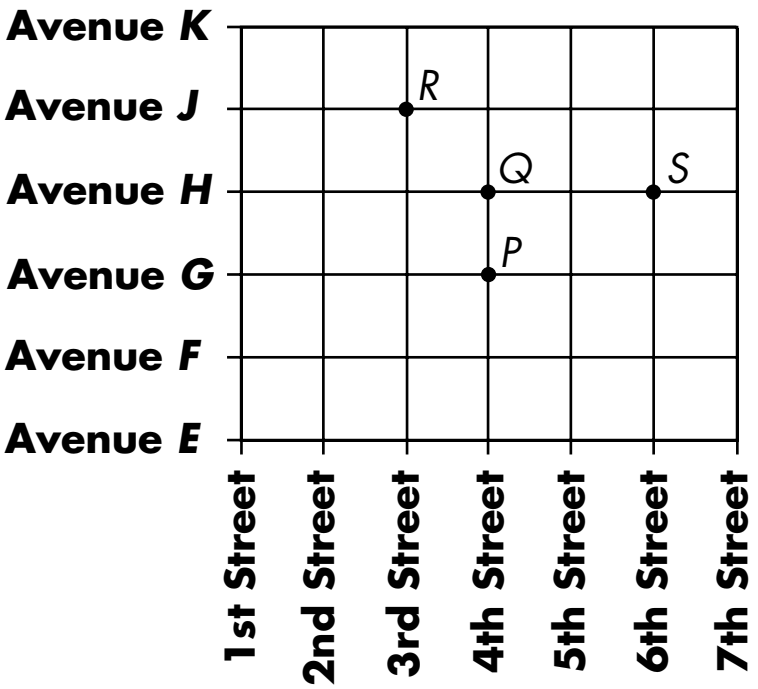
If you have time, you may review your work in this section only.

DO NOT GO ON UNTIL YOU ARE TOLD TO DO SO.

DIRECTIONS:

Choose the best of the answer choices given for each of the following problems. Fill in the circle next to your choice. You may use a calculator.

30. This map shows part of Miguel's town.



Miguel lives at the corner of 4th Street and Avenue *H*. Which point on the map shows where Miguel lives?

Ⓐ **point *P***

Ⓑ **point *Q***

Ⓒ **point *R***

Ⓓ **point *S***

TURN TO THE NEXT PAGE.

31. After buying a notebook for $1.75, Jacy had $2.50 left. Which sentence could be used to find out how much money she had before she bought the notebook?

Ⓐ **$1.75** − ☐ = **$2.50**

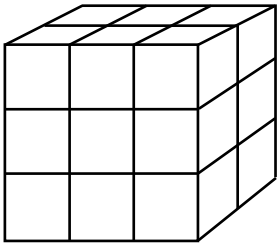
Ⓑ ☐ + **$2.50** = **$1.75**

Ⓒ ☐ − **$1.75** = **$2.50**

Ⓓ **$1.75** + ☐ = **$2.50**

GO ON TO THE NEXT PAGE.

32. How many cubes are needed to make the solid below?



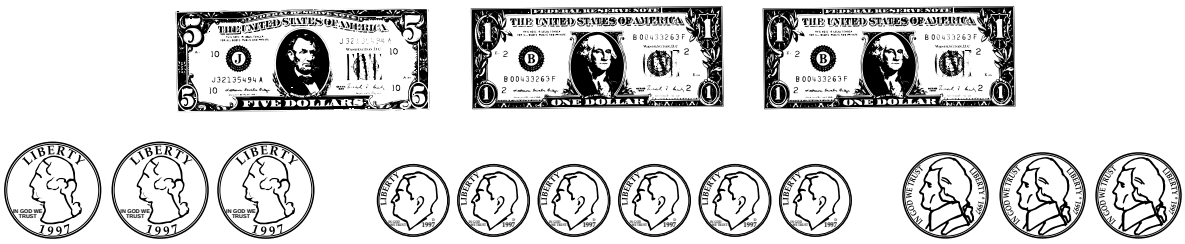
Ⓐ **9**

Ⓑ **14**

Ⓒ **18**

Ⓓ **21**

33. This picture shows the money that Lamar has after selling lemonade for three hours.



How much money does Lamar have?

Ⓐ **$9.10**

Ⓑ **$8.50**

Ⓒ **$8.45**

Ⓓ **$4.50**

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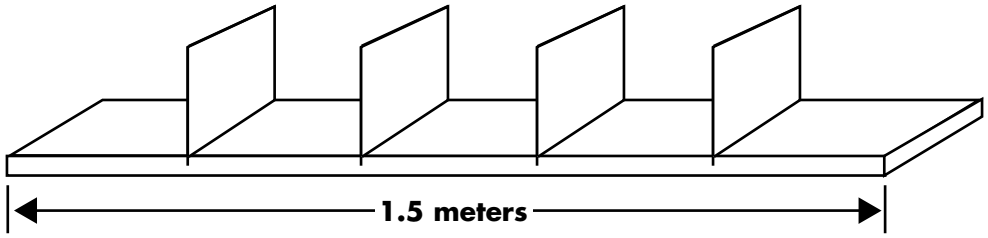
34. The drawing shows a shelf that measures 1.5 meters. It is divided into 5 sections of equal length.



What is the approximate length of each section?

Ⓐ **3 meters**

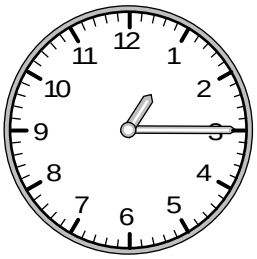
Ⓑ **1 meter**

Ⓒ **0.75 meters**

Ⓓ **0.3 meters**

GO ON TO THE NEXT PAGE.

35. Michelle went to her friend's house at 1:15 p.m. Her father told her to be home in 1 hour and 45 minutes. What time did Michelle need to be home?



Ⓐ **2:00 p.m.**

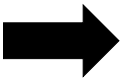
Ⓑ **2:30 p.m.**

Ⓒ **2:45 p.m.**

Ⓓ **3:00 p.m.**

DO NOT WRITE IN THIS AREA

GO ON TO THE NEXT PAGE.



Directions for the Open-Ended Questions

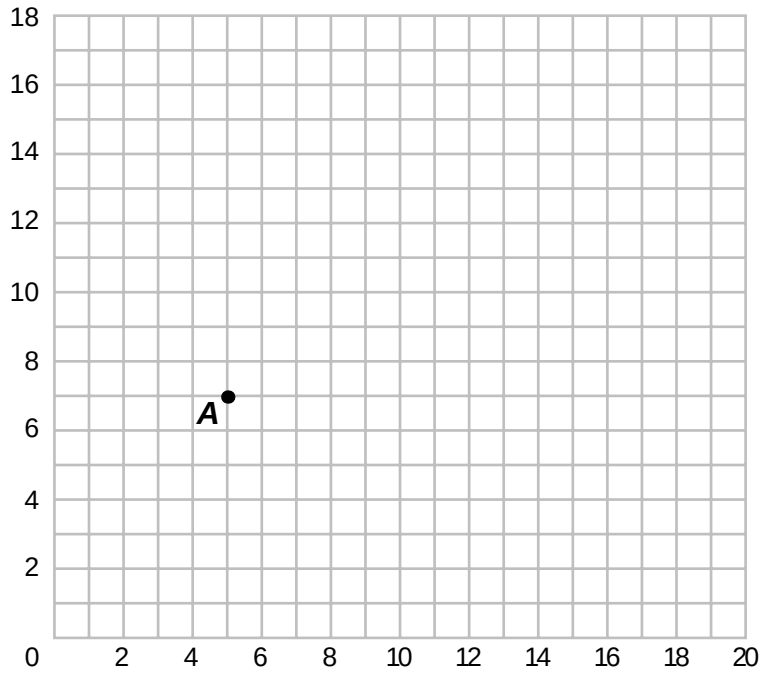
The following questions are open-ended questions. Remember to:

- Read each question carefully and think about the answer.
- Answer all the parts of the questions.
- Show your work and explain your answers.

You can answer the questions by using words, tables, diagrams, OR pictures.

TURN TO THE NEXT PAGE.

36. Use the grid provided for the following problem.



- **Plot and label the points listed below.**

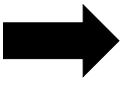
  ***B* (11, 7)** ***C* (8, 12)** ***D* (2, 12)**

- **Connect points *A*, *B*, *C*, and *D* to draw figure *ABCD*.**
- **Use the colored shape that matches the figure *ABCD* above. Flip your shape over the line *AB*. Trace the shape.**
- **Is the area of the flipped shape more, less, or about the same as the original?**

GO ON TO THE NEXT PAGE.

Work area for question 36

TURN TO THE NEXT PAGE.



37. Mrs. Thompson's class recently completed a lesson on number patterns. Each student had to write a rule to describe a pattern of numbers and list some numbers in the pattern. Two examples are shown below.

Rule:	**Start with 2. Multiply each number by 2 to get the next number in the pattern.**
Pattern:	**2, 4, 8, 16, 32, ...**

Rule:	**Start with 1. Add 1 to the first number, add 2 to the second number, add 3 to the third number, and so on.**
Pattern:	**1, 2, 4, 7, 11, ...**

- **Tony's pattern is shown below. Write a rule to describe his pattern.**

1, 4, 5, 8, 9, ...

- **Write your own rule for a number pattern.**
- **Also, write the first five numbers in your pattern.**

GO ON TO THE NEXT PAGE.

Work area for question 37

If you have time, you may review your work in this section only.

CLOSE YOUR TEST BOOKLET.

Mathematics Punch-Out Sheet
"colored shapes" and "ruler"